

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (Canceled).

Claim 19 (Currently Amended): A prosthetic intervertebral disc comprising: a disc body, having a superior surface that is substantially comprised of a single articulating surface and an inferior surface as a base adapted for fixation to a first vertebral bone surface, wherein a solely convex reference curve having a substantially uniform radius of curvature is formed when the single articulating surface is intersected with a midsagittal plane, and wherein concave reference curves are formed when the single articulating surface is intersected with planes orthogonal to the midsagittal plane, wherein the ends of the concave reference curves extend to boundaries of the single articulating surface, and wherein the single articulating surface is fixed relative to the inferior surface.

Claim 19 (Canceled).

Claim 21 (Previously Presented): The prosthetic disc of claim 19, wherein the superior surface is a saddle surface.

Claim 22 (Previously Presented): The prosthetic disc of claim 19, wherein the articulating surface is a surface with a hyperbolic paraboloid shape.

Claim 23 (Previously Presented): The prosthetic disc of claim 19, wherein the inferior surface is substantially planar.

Claim 24 (Previously Presented): The prosthetic disc of claim 19, wherein the inferior surface is a separate component manufactured separately.

Claim 25 (Previously Presented): The prosthetic disc of claim 19, wherein the inferior surface has features for bone ingrowth.

Claim 26 (Previously Presented): The prosthetic disc of claim 19, wherein the

inferior surface is made of a porous material.

Claim 27 (Previously Presented): The prosthetic disc of claim 19, wherein the inferior surface is provided with a surface treatment.

Claim 28 (Currently Amended): The prosthetic disc of claim 19, wherein the superior surface is shaped to be mated to a lower surface of a ~~vertebra~~ vertebra positioned above the superior surface.

Claim 29 (Previously Presented): The prosthetic disc of claim 19, wherein the superior surface is shaped to be mated to and articulate with a second artificial body positioned above the superior surface.

Claim 30 (Previously Presented): The prosthetic disc of claim 19, wherein the superior surface is adapted for articulation with a vertebral body.

Claim 31 (Previously Presented): An artificial intervertebral disc comprising:
a disc body having a superior surface and an inferior surface adapted for fixation to vertebral bone, wherein the superior surface is substantially comprised of an articulating surface, wherein a convex reference curve is formed when the superior articulating surface is intersected with a midsagittal plane, wherein a concave reference curve is formed when the articulating surface is intersected with a second plane orthogonal to the midsagittal plane and central to the disc body, wherein the concave reference curve extends from a first end of the articulating surface to a second end of the articulating surface and, wherein the articulating surface is fixed relative to the inferior surface.

Claim 32 (Previously Presented): The artificial intervertebral disc of claim 31, wherein the articulating surface is adapted for articulation with a second body.

Claim 33 (Withdrawn): The artificial intervertebral disc of claim 32, wherein second body is a vertebral body.

Claim 34 (Previously Presented): The artificial intervertebral disc of claim 32, wherein the second body is an artificial disc body having an inferior articulating surface and a superior surface adapted for fixation to bone, wherein the inferior articulating surface has a hyperbolic paraboloid shape.

Claim 35 (Previously Presented): The artificial intervertebral disc of claim 32, wherein the articulating surface is a hyperbolic paraboloid shape.

Claim 36 (Previously Presented): The artificial disc of claim 34, wherein the inferior articulating surface of the second body is reciprocally shaped with respect to the articulating surface of the disc body.

Claim 37 (Withdrawn): A method of providing a prosthetic intervertebral disc comprising the steps of:

removing a portion of an intervertebral disc, thereby creating an intervertebral disc space; and

placing a prosthetic disc substantially within said intervertebral disc space, wherein the prosthetic disc comprises:

a disc body, having a first surface that is a concave-convex articulating surface and a second surface as a base adapted for fixation to a first bone surface.

Claim 38 (Withdrawn): The method of claim 37, wherein placing includes mating the disc body to a surface of a vertebra.

Claim 39 (Withdrawn): The method of claim 37, wherein the prosthetic disc is shaped to be mated to a second body upon placing within the intervertebral disc space.

Claim 40 (Withdrawn): The method of claim 37, wherein the prosthetic disc is adapted for articulation with a vertebral body.

Claim 41 (Withdrawn): The method of claim 37, wherein placing includes

mating the prosthetic disc to a surface of a second artificial body,

Claim 42 (Currently Amended): An artificial intervertebral disc suitable for placement between adjacent vertebra comprising:

a disc body having a superior surface and an inferior surface adapted for fixation to vertebral bone, wherein the superior surface includes an articulating surface, wherein boundaries of the articulating surface are proximate to boundaries of the superior surface, wherein convex reference curves having substantially uniform radius of curvature are formed when the articulating surface is intersected with sagittal planes, wherein concave reference curves are formed when the articulating surface is intersected with planes orthogonal to a sagittal plane, wherein the superior surface is fixed relative to the inferior surface.